THE SUBGENERA OF XYLOPHYLAX KRIECHBAUMER (HYMENOPTERA: ICHNEUMONIDAE) WITH DESCRIPTIONS OF TWO NEW EASTERN PALEARCTIC SPECIES

Michael Sanborne

Department of Biology, Carleton University
Ottawa, Ontario, Canada, K1S 5B6

ABSTRACT

The subgenera of *Xylophylax* Kriechbaumer (Hymenoptera: Ichneumonidae) are described and include *Euraspidion*, new subgenus, and *Xylophylax* Kriechbaumer. Two new eastern palearctic species are described: *nigrifemur* (*Xylophylax*), *bimaculata* (*Euraspidion*).

I have had the opportunity to examine all the known species of *Xylophylax Kriechbaumer*, including two previously undescribed eastern palearctic species. It became readily apparent that the genus could be classified into two clearly defined subgenera and these are described below.

Subgenus *Xylophylax* Kriechbaumer

Xylophylax Kriechbaumer, 1878. Ent. Nachr. 4: 210
Type-species: *Pyracmon* (*Parapyracmon*) *rufocoxalis* Clément.
Designated by Townes, 1970.

Antennal scape with inner margin 1.8-2-4 x as long as outer margin (except Longicauda group and Pectoralis group which have inner margin 1.3-1.4 x as long as outer margin). Vertex unusually long, with portion produced behind lateral ocelli approx. 0.8-1.9 x as long as length of ocellar triangle. Lower temple very long. Clypeus narrow, with antero-lateral corners not extending beyond tentorial pits, with anterior margin usually produced medially as a small tooth (weakly or not produced in Longicauda group, not produced in Pectoralis group). Mandible short, strongly tapering, with lower tooth slightly to distinctly longer than upper tooth. Abdomen of both sexes entirely black.

This subgenus comprises one holarctic, eight palearctic, and seven nearctic species in four species-groups (see following paper for descriptions and keys to world species-groups).

Euraspidion, new subgenus

Type-species: *Xylophylax* (*Euraspidion*) *vancouverensis* (Harrington). By present designation.

Antennal scape with inner margin approx. 1.5-1.9 x as long as outer margin. Vertex moderately long, with portion produced behind lateral ocelli approx. 0.5-1.0 x as long as length of ocellar triangle. Lower temple moderately long. Clypeus broad, with anter0-lateral corners extending beyond tentorial pits, its anterior margin not produced medially as a small tooth. Mandible long, weakly tapering, with lower tooth distinctly longer than upper tooth. Abdomen partially to entirely rufous except one new species from palearctic and macdunnoughi (nearctic) which have entirely black abdomens.

This subgenus comprises one palearctic, and five nearctic species in three species groups. Its name is derived from the greek words 'eury' meaning wide, and 'aspidus' meaning lip, in reference to the broad clypeus.

The following are descriptions of two new eastern palearctic species and includes the first species of the subgenus Euraspidion recorded from this region

Illustrations depicting these subgenera can be seen in the paper immediately following this (Sanborne, 1986c).

Xylophylax (Xylophylax) nigrifemur, new sp.

Clypeus with antero-lateral corners not extending beyond tentorial pits. Propodeum with petiolar area about as long as wide, with median longitudinal carinae distinctly angulate medially. Ovipositor approx. 2.2 x as long as hind femur. Hind femur mostly black.

HOLOTYPE. Female. Antennal flagellum with 34 articles. Antennal scape with inner margin approx. 1.6 x as long as outer margin. Cmpd. eye with inner margin weakly diverging ventrad. Face strongly shagreened, matte, with small punctures which are separated by distance less than dia. of single puncture. Clypeus with antero-lateral corners not extending beyond tentorial pits, its anterior margin weakly, broadly produced medially. Gena approx. 0.9 x as wide as basal width of mandible. Temples, in dorsal view, inflated. Mandible with lower tooth much longer than upper tooth. Mesopleuron with speculum smooth, polished, impunctate. Lower 0.5 of mesopleuron with small punctures which are separated by distance approx. equal to dia. of single puncture. Propodeum with carinae complete, strong. Areola about as long as wide, completely confluent with petiolar area. Petiolar area about as long as wide, with median longitudinal carinae distinctly angulate medially. Hind femur approx. 4.1 x as long as deep. Hind tarsal claw with moderately strong teeth which extend to base of tip. First abdominal segment with petiole approx. 1.1 x as long as postpetiole. Ovipositor approx. 2.2 x as long as hind femur. Fore wing approx. 7.0 mm. long.

Head, thorax, abdomen, black. Median area of mandible yellowish. Palpi, fore and middle femora, fore and middle tibiae, ferrugineous. Tegula, coxae, basal segment of hind trochanter, hind femur, hind tibia, hind tarsi, darkly fuscous. Wings hyaline.

Range and Variation. Known only from holotype.

Male. Fore wing approx. 5.5 mm. long. Hind femur approx. 4.7 x as long as deep. Vertex, upper temple, thorax, petiolar segment of abdomen, black. Hind coxa, abdominal tergites 2 to apex, dark fuscous. Front of scape and pedicel, face, clypeus, lower temple, median area of mandible, fore and middle trochanters, ventral surfaces of fore and middle coxae, yellowish. Fore and middle femora, fore and middle tibiae, ferrugineous. Dorsal surface of fore and middle coxae, basal segment of hind trochanter, hind tibia, hind tarsi, fuscous. Wings weakly infuscated.

Holotype. Female. Jozankei, Hokkaido, Japan, VII-10-1954, Townes family. Deposited in H. & M. Townes collection, Gainesville, Fla.

Paratype. Male. Yokohama, Japan, V-10-1934, Kaku Sato. Deposited in H. & M. Townes collection, Gainsville, Fla.

Etymology. The species is named for the colour of the hind femur.

Host and Biology. Unknown.

Remarks. This species belongs in the subgenus Xylophylax, and is most similar to the palearctic species obscuripes. The petiolar area of obscuripes differs in being longer than wide and its ovipositor is relatively much shorter than that of nigrifemur.

Xylophylax (Euraspidion) bimaculata, new sp.

Clypeus with antero-lateral corners extending beyond tentorial pits, its anterior margin not produced medially. Mandible with lower tooth distinctly longer than upper tooth. Temples, in dorsal view, strongly sloping inwardly. Abdomen black. Face with white spot below each antennal socket (spots sometimes absent.

HOLOTYPE. Female. Antennal flagellum with 28 articles. Antennal scape with inner margin approx. 1.7 x as long as outer margin. Cmpd. eyes with inner margins weakly diverging ventrad. Face strongly strongly shagreened, matte, with medium sized punctures which are separated by distance less than dia. of single puncture. Clypeus with antero-lateral corners extending beyond tentorial pits, its anterior margin not produced medially. Gena approx. 0.9 x as wide as basal width of mandible. Temples, in dorsal view, strongly sloping inwardly. Mandible with lower tooth distinctly longer than upper tooth. Mesopleuron with speculum smooth, polished, impunctate, its lower 0.5 shagreened, weakly polished, with small punctures which are separated by distance 1.0-1.5 x the dia. of single puncture. Propodeum completely areolated, the carinae very strong, with areola confluent with petiolar area. Hind femur approx. 4.2 x as long as deep. Hind tarsal claw with moderately strong teeth which extend to base of tip. First abdominal segment with petiole approx. 1.4 x as long as postpetiole. Fore wing approx. 7.3 mm. long. Hind wing with nervellus intercepted near basal 0.3.

Head (except spots below antennal sockets), thorax, abdomen, coxae, hind femur, black. White spot under each antennal socket. Median area of mandible yellowish. Palpi, tegula, legs (except hind femur), fuscous. Wings weakly infuscated.

Range and Variation. Antennal flagellum with 26-28 articles. Hind femur 3.8-4.2 x as long as deep. Fore wing 5.6-7.3 mm. Face with or without white spot under each antennal socket. The preceeding is based upon one other specimen.

Male. Unknown.

Holotype. Female. Sapporo, Japan, July 6, 1954, Townes family. Deposited in H. & M. Townes collection, Gainesville, Fla.
Paratype. Female. Same data as above.

Etymology. The species is named for the white spots occuring beneath the antennal sockets of the holotype specimen.

Host and Biology. Unknown.

Remarks. This species is the only known representative of the subgenus Euraspidion in the palearctic region. It is readily distinguished from all known palearctic species by the broad clypeus (antero-lateral corners extend beyond tentorial pits) and from all known species of the genus by the presence of white spots beneath each antennal socket of some females. Its is most closely related to the nearctic species macdunnoughi.

ACKNOWLEDGEMENTS

I thank Dr. H. K. Townes for lending me the material upon which these descriptions are based. Support for this project was in the form of an operating grant administered by N.S.E.R.C. (Natural Sciences and Engineering Research Council) and held by Dr. S. B. Peck, Carleton Univ., Ottawa, Ont. and additional support came from the N.S.E.R.C. post-doctoral fellowship awards program.

REFERENCES

Harrington, W. H. 1894. Canadian Hymenoptera No. 6. Can. Ent. 26:246.
Kriechbaumer, J. 1878. Bitte an die Ichneumonologen. Ent. Nachr. 4:210-211.
Townes, H. K. 1970. Genera of Ichneumonidae, Part 3. Mem. Amer. Ent. Inst., 13. 307 pp.